

ABSTRACT

A tabular form element arrangement data 3, which describes the arrangement of various component elements constituting a production system along the work flow in a combination of process identification names with component element names, is prepared. Element definition files 4 describing programs for simulating the operations of various component elements are prepared for various component elements. Program preparation means 2 sequentially reads component element names combined with process identification names from the element arrangement data 3 and sequentially reads the element definition files 4 corresponding to the read component element names. Then, a variable array 6 containing variables described in respective element definition files 4 is prepared and at the same time, an initial process program array 8 containing programs described in respective definition files 4 and a simulation program array 9 are prepared. Thereafter, the initial process programs contained in the initial process program array 8 are executed to correspond variables referring to each other and the operations of various component elements constituting a production system are simulated by executing a series of simulation programs contained in the simulation program array 9.